

**Meeting of the Central Valley Flood Protection Board
August 26, 2010
Staff Report – Encroachment Permit
California Department of Transportation
French Camp Slough Bridge Widening, San Joaquin County**

1.0 – ITEM

Consider approval of Permit No. 18594-A (Attachment B).

2.0 – APPLICANT

California Department of Transportation.

3.0 – LOCATION

The project is located in Stockton at the Interstate 5 crossing of French Camp Slough. (French Camp Slough, San Joaquin County, see Attachment A).

4.0 – DESCRIPTION

Applicant proposes to plant native vegetation within French Camp Slough at the Interstate 5 crossing, as part of the I-5/French Camp Slough Bridge widening project.

5.0 – PROJECT ANALYSIS

The I-5/French Camp Slough Bridge widening project (without re-vegetation) was approved under Permit No. 18594 at the July 26, 2010 Board meeting. The existing vegetation will be removed to facilitate the construction of the I-5/French Camp Slough Bridge widening project. The purpose of this proposed native vegetation planting under Permit Application No. 18594-A is to restore the riparian vegetation impacted by the construction activities. The re-vegetation planting plan includes trees, willows, and shrubs on the sloping banks of French Camp Slough, as shown on Attachment C.

The proposed project is located within French Camp Slough, a regulated stream and it is a non-federal project.

5.1 – Hydraulic Analysis

Previously, a hydraulic report was prepared by HDR for the I-5/French Camp Slough Bridge widening project without re-vegetation on July 1, 2002, and revised on April 21, 2009. The hydraulic model analysis results from the report showed that the addition of piers into the channel in addition to the existing piers will not cause an increase in the 100-year water surface elevation. Currently, a new hydraulic report was prepared by HDR for the re-vegetation planting plan on August 10, 2010. A new hydraulic modeling analysis was performed to determine if the full growth vegetation and the bridge widening project would affect the 100-year water surface elevation at the site. The results indicated that the vegetation will cause a very small increase of 0.04 foot (0.48 inch) in the 100-year water surface elevation as compared to that from the existing conditions (see Table 2, Attachment D). The results also showed that there will be an excessive freeboard of approximately 5 feet (see Table 3, Attachment D). The new hydraulic analysis shows that the project will provide a minimum of three (3) feet freeboard for a 100-year flood event, and this complies with the California Code of Regulations, Title 23 Waters, Section 128(a)(10)(A).

5.2 – Geotechnical Analysis

The purpose of the re-vegetation planting is to restore the existing vegetation that will be cut down to allow for the construction of the I-5/French Camp Slough Bridge widening project. No geotechnical concerns are anticipated and no geotechnical analysis was performed.

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- The San Joaquin County Flood Control & Water Conservation District (District) endorsement letter dated August 13, 2010 has been received and is attached to draft Permit 18594-A (Attachment B) as Exhibit A. The District has no objection and endorses the proposed project with conditions stated in the letter.

7.0 – CEQA ANALYSIS

Board staff has prepared the following CEQA Findings:

The Board, acting as a responsible agency under CEQA, has independently reviewed the Draft Environmental Impact Report/Environmental Assessment (DEIR, March 2006), Final Environmental Impact Report/Environmental Assessment (FEIR, November 2006), and Stockton City Council Resolution 07/02-62 (adopted June 26, 2007), (which includes a Statement of Facts, Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program) for the Interstate 5/French Camp Road Interchange and Sperry Road Extension Project (SCH No. 2003112018) prepared by the lead agency, the City of Stockton. These documents, including project design and City resolution, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvfpb.ca.gov/meetings/2010/8-26-2010agenda.cfm> under a link for this agenda item.

7.1 – Impacts that can be Mitigated

The following are the significant impacts and the mitigation measures to reduce them to less than significant:

- **Aesthetics and Visual Resources:** The project proponent will prepare and implement a restoration plan in accordance with County and City tree ordinance requirements to mitigation for the permanent visual impact of vegetation removal.
- **Biological Resources:** Prior to construction, conduct a biological resources education program for construction crews and enforce construction restrictions. The project proponent will prepare and implement a restoration plan in accordance with County and City tree ordinance requirements to mitigation for the loss of Great Valley Oak Riparian Forest habitat. The contractor would minimize the spread of noxious weeds by educating construction staff on identification and removal, using weed-free materials, and washing equipment. Pre-construction surveys will be completed for Swainson's hawk, western pond turtle, giant garter snake, riparian brush rabbit, riparian woodrat, bank swallow, and western burrowing owl.
- **Community Resources:** The project proponent will implement traffic control measures to reduce disruption of traffic pattern during construction activities.
- **Hydrology and Water Quality:** Implement construction-related and permanent post-construction Best Management Practices, including erosion control. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented, as appropriate, to retain, treat, and dispose of surface water and groundwater. Additionally, the project proponent will develop and implement a spill prevention and control program.

- Noise: The project proponent will employ noise-reduction design features in the design of the proposed project. Implement equipment noise reduction measures and move portable equipment as far from noise-sensitive locations, as feasible.
- Transportation and Traffic: The project proponent will prepare and implement a traffic management plan that would identify the location of temporary detours and signage to facilitate local traffic patterns and through-traffic requirements. Emergency service providers would be contacted with adequate advanced notice of street closures and detours. Businesses would be contacted and advised concerning construction activities.

Based on its independent review of the DEIR, FEIR, and the City of Stockton Resolution 07/02-62, the Board finds that for each of the significant impacts described above, changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Moreover, such changes or alterations are within the responsibility and jurisdiction of another public agency, the City of Stockton, and such changes have been adopted by that agency.

The documents and other materials which constitute the record of the Central Valley Flood Board's proceedings in this matter are in the custody of Jay Punia, Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Rm. 151, Sacramento, California 95821.

8.0 – SECTION 8610.5 CONSIDERATIONS

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

The project is a replacement of the vegetation to be removed and will not have an adverse impact to the State Plan of Flood Control.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

The project will still have a freeboard of 5 feet if the effects of backwater from the San Joaquin River are taken into account. The water surface elevation change resulting from change in climate for the site is unknown. However, because of the excessive amount of freeboard in the channel at this location, the potential water surface raise will be within the freeboard. There are no other foreseeable projected future events that would impact this project.

9.0 – STAFF RECOMMENDATION

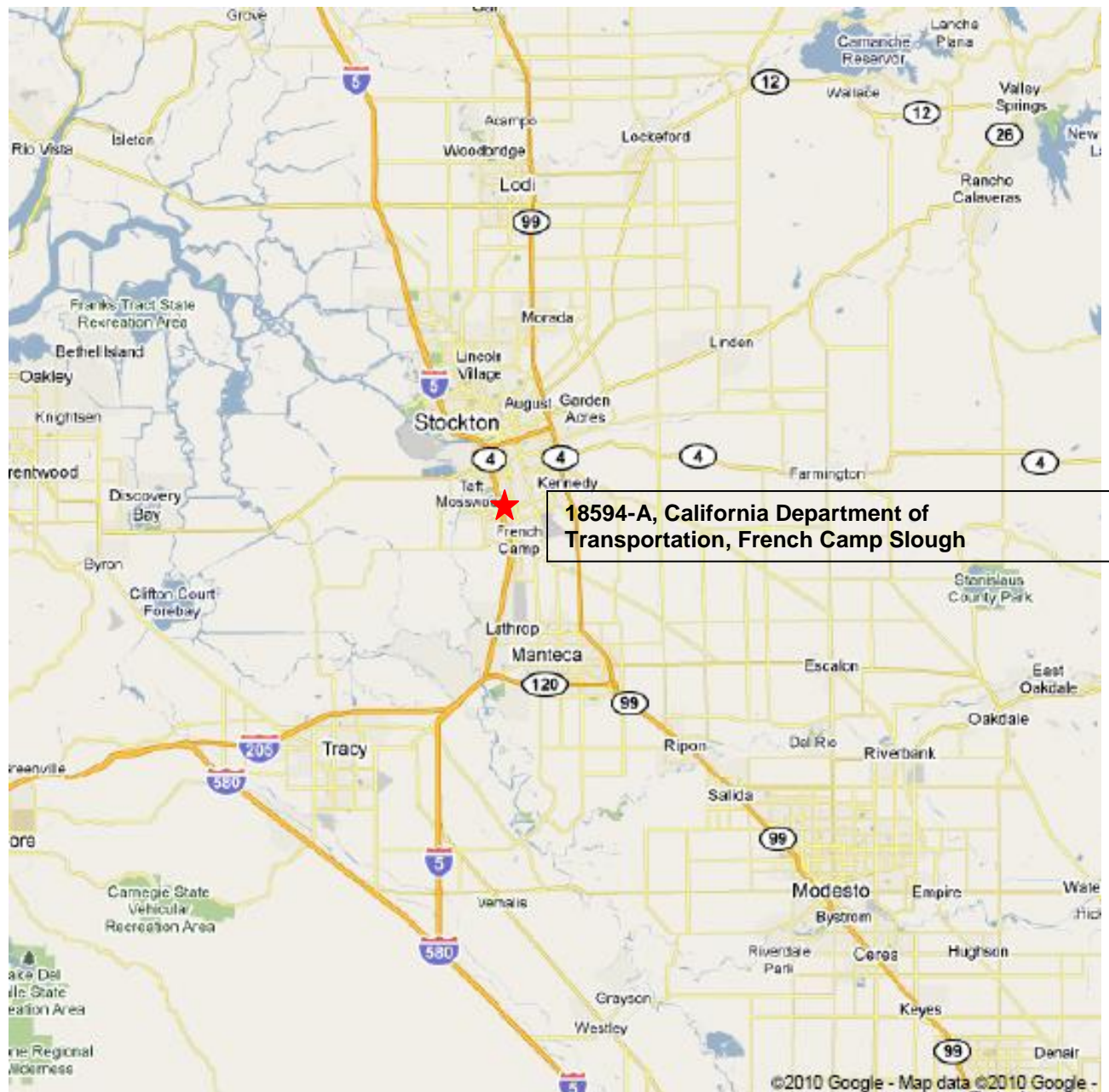
Staff recommends that the Board adopt the CEQA findings, direct staff to file a Notice of Determination with the State Clearinghouse, and approve Permit No. 18594-A.

10.0 – LIST OF ATTACHMENTS

- A. Location Maps and Photos
- B. Draft Permit
- C. Re-vegetation Planting Plans
- D. Summary of Hydraulic Analysis

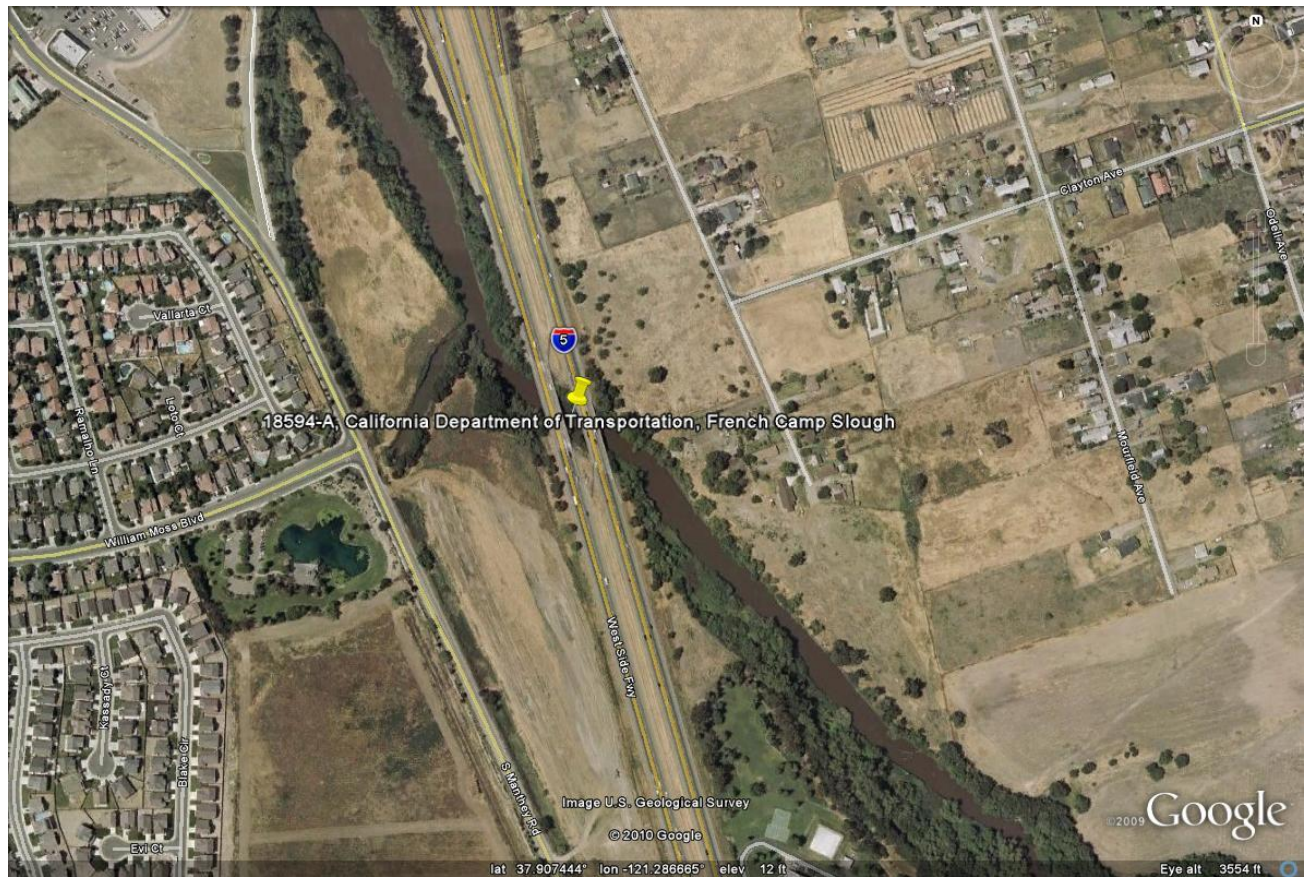
| | |
|-----------------------|----------------------------|
| Design Review: | Joo Chai Wong |
| Environmental Review: | Andrea Mauro |
| Document Review: | Ali Porbaha and Len Marino |

Vicinity Map



Source: Google Maps

Project Location Map



Source: Google Earth



Photo Point 1. Photograph taken from the shoulder of southbound I-5, looking northwest.



Photo Point 2. Photograph taken from the shoulder of southbound I-5, looking southeast.



Photo Point 3. Photograph taken from adjacent to northbound I-5, looking northwest.



Photo Point 4. Photograph taken from adjacent to northbound I-5, looking southeast.



Photo Point 5. Photograph taken from adjacent to northbound I-5, looking northeast.



Photo Point 6. Photograph taken from under the northbound lane of I-5, looking northeast.

Source: From the Applicant



Photo Point 7. Photograph taken between the northbound and southbound lanes of I-5, looking west.



Photo Point 8. Photograph taken between the northbound and southbound lanes of I-5, looking east.



Photo Point 9. Photograph taken from the shoulder of southbound I-5, looking west.



Photo Point 10. Photograph taken from the shoulder of southbound I-5, looking southeast.



Photo Point 11. Photograph taken from the shoulder of southbound I-5, looking north.



Photo Point 12. Photograph taken from adjacent to southbound I-5, looking east.



Photo Point 13. Photograph taken from adjacent to northbound I-5, looking south.



Photo Point 14. Photograph taken from adjacent to northbound I-5, looking north.

DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18594-A BD

This Permit is issued to:

California Department of Transportation
22 E Weber Avenue, Room 301
Stockton, California 95202

To plant native vegetation within French Camp Slough at the Interstate 5 crossing, as part of the I-5/French Camp Slough Bridge widening project. The project is located in Stockton at the Interstate 5 crossing of French Camp Slough (Section 11, T1N, R6E, MDB&M, San Joaquin County Flood Control and Water Conservation District, French Camp Slough, San Joaquin County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____

Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15

Page 1 of 4

days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18594-A BD

THIRTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

FOURTEEN: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources, San Joaquin County Flood Control and Water Conservation District or any other agency responsible for maintenance.

FIFTEEN: The permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

SIXTEEN: The permittee shall provide supervision and inspection services acceptable to the Central Valley Flood Protection Board. A professional engineer registered in the State of California shall certify that all work was inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

SEVENTEEN: The Central Valley Flood Protection Board and Department of Water Resources shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

EIGHTEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California

Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

NINETEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

TWENTY: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

TWENTY-ONE: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY-TWO: The permittee shall be responsible for repair of any damages to French Camp Slough and other flood control facilities due to construction, operation, or maintenance of the proposed project.

TWENTY-THREE: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-FOUR: No construction work of any kind including vegetation planting shall be done during the flood season from November 1 to April 15 without prior approval of the Central Valley Flood Protection Board.

TWENTY-FIVE: All cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to April 15.

TWENTY-SIX: All debris generated by this project shall be disposed of outside the floodway and project site.

TWENTY-SEVEN: If the permitted encroachments result in an adverse hydraulic impact, the permittee shall provide appropriate mitigation measures, to be approved by the Central Valley Flood Protection Board, prior to implementation of mitigation measures.

TWENTY-EIGHT: The permittee shall comply with the conditions set forth in the letter from the San Joaquin County Flood Control and Water Conservation District dated August 13, 2010, which is

attached to this permit as Exhibit A and is incorporated by reference.



SAN JOAQUIN COUNTY

FLOOD CONTROL & WATER CONSERVATION DISTRICT

P. O. BOX 1810

1810 EAST HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
TELEPHONE (209) 468-3000
FAX NO. (209) 468-2999

THOMAS R. FLINN
DIRECTOR OF PUBLIC WORKS
FLOOD CONTROL ENGINEER

August 13, 2010

Central Valley Flood Protection Board
3310 El Camino Avenue
Sacramento, California 95821

Attention: Floodway Protection Section

SUBJECT: CENTRAL VALLEY FLOOD PROTECTION BOARD PERMIT APPLICATION NO. 18594-A
FOR THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CITY OF
STOCKTON, AT THE INTERSTATE 5 CROSSING OF FRENCH CAMP SLOUGH

Gentlemen:

Reference is made to the Central Valley Flood Protection Board Permit Application No. 18594-A of the California Department of Transportation (Caltrans) and the City of Stockton to re-vegetate areas disturbed when widening the bridge over French Camp Slough. The scope of the project includes replanting of native grasses, shrubs, bushes, and trees to replace those that must be removed prior to and during construction.

The project is located at the Interstate 5 crossing of French Camp Slough in San Joaquin County, in Section 11, Township 1 North, Range 6 East, Mount Diablo Base and Meridian.

The San Joaquin County Flood Control and Water Conservation District has reviewed the Central Valley Flood Protection Board Permit Application No. 18594-A of the California Department of Transportation and the City of Stockton and endorses the project subject to the following condition:

1. The applicant agrees to maintain the vegetation that is being reestablished for French Camp Slough such that it does not increase the 100-year water surface elevation pursuant to San Joaquin County Ordinance Code Section 9-1605.17.

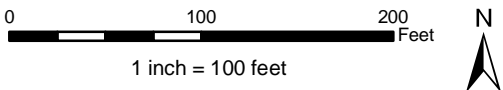
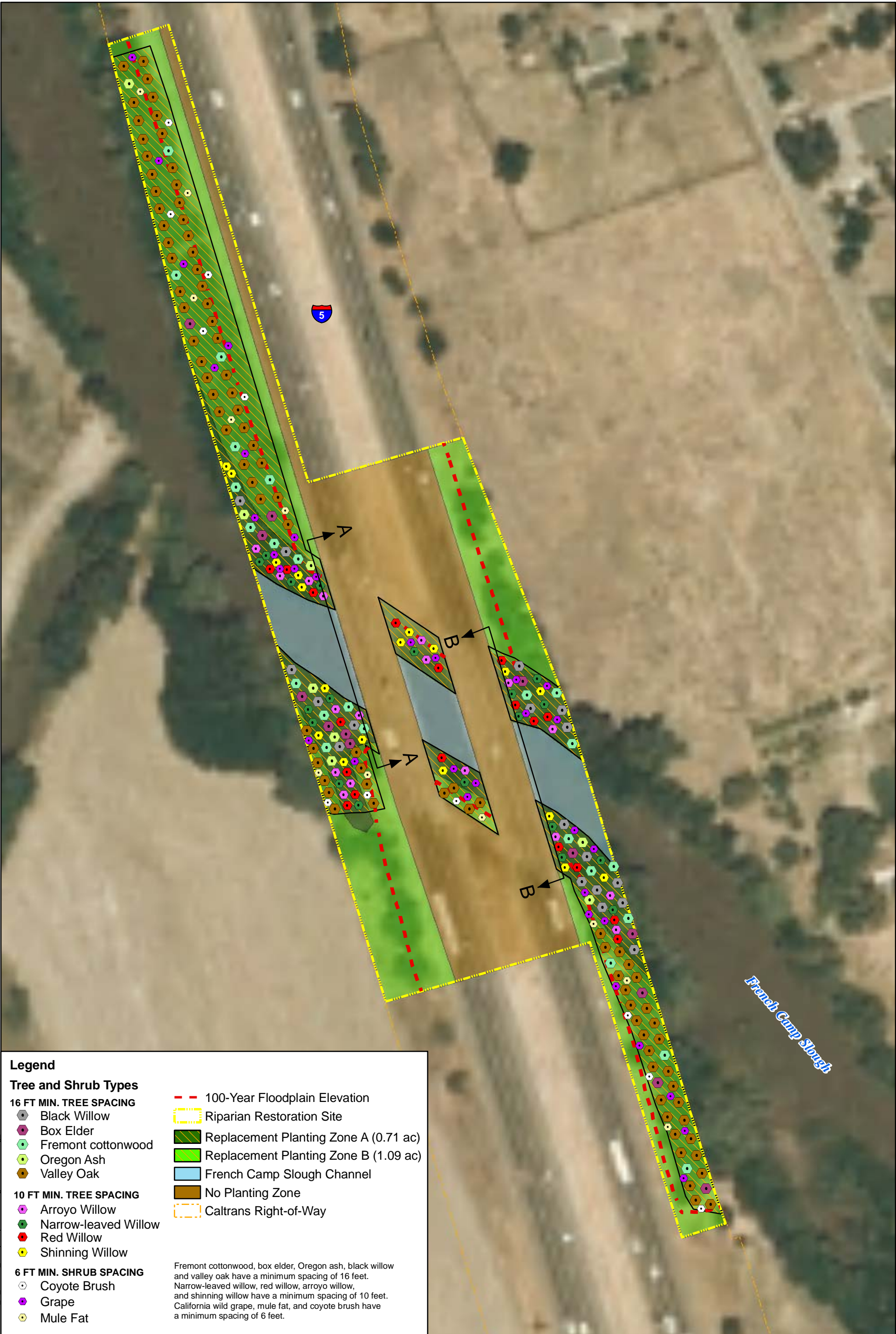
If there are any questions regarding these comments, please contact me at (209) 953-7617.

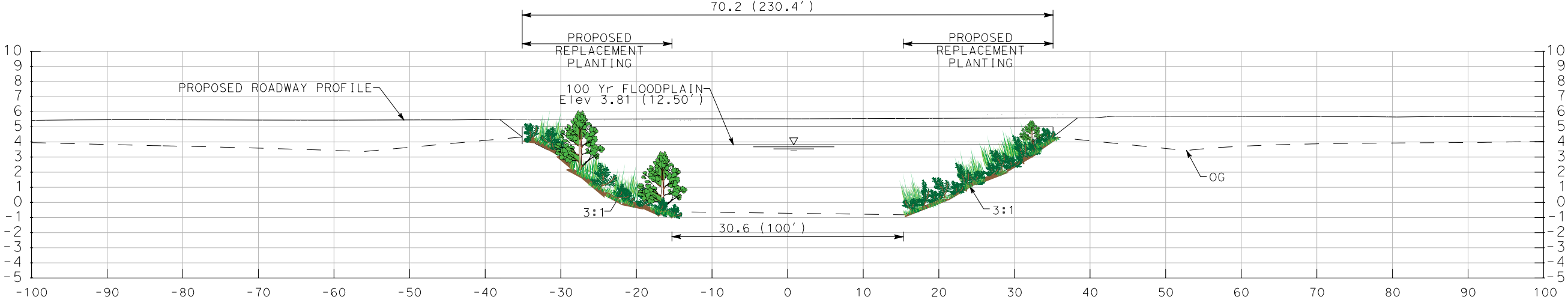
Sincerely,

MARK W. CONNELLY
Engineering Services Manager

MWC:JC:to
FM-10H022-T1

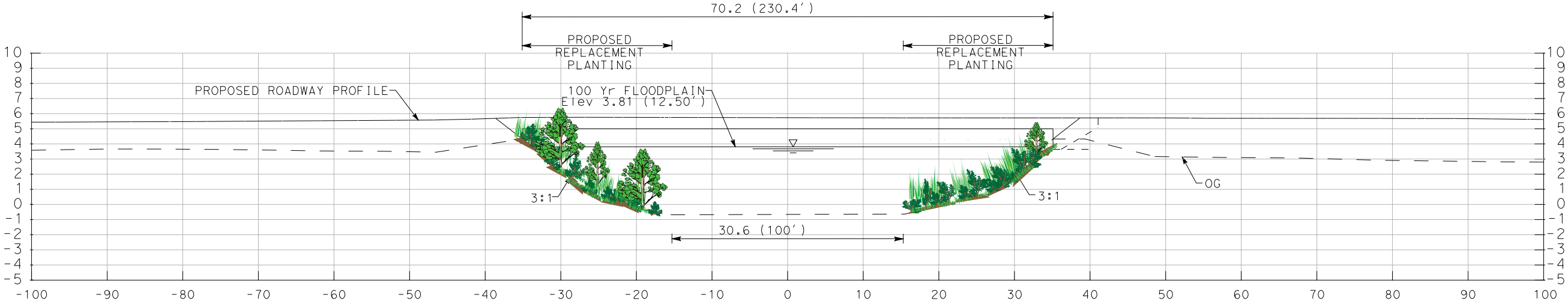
c: Joo Chai Wong, Central Valley Flood Protection Board





**SECTION A-A
FRENCH CAMP SLOUGH
(DOWNSTREAM FACE OF BRIDGE)
STATION 2.34 (RIVER MILES)**

SCALE: Horiz 1:600
Vert 1:300



**SECTION B-B
FRENCH CAMP SLOUGH
(UPSTREAM FACE OF BRIDGE)
STATION 2.39 (RIVER MILES)**

SCALE: Horiz 1:600
Vert 1:300

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

HDR

**FRENCH CAMP SLOUGH
CROSS SECTIONS**

SCALE AS SHOWN

Table 2. Water Surface Elevations at the I-5 Bridge Crossings

| Location | River Station (RM) | Recurrence Interval | WSE (ft, NGVD 29) | | Difference between Proposed and Existing WSE (ft) |
|--------------------------------|--------------------|---------------------|-------------------|----------|---|
| | | | Existing | Proposed | |
| I-5 Northbound U/S Bridge Face | 2.39 | 50-year | 11.36 | 11.40 | 0.04 |
| | | 100-year | 12.74 | 12.78 | 0.04 |
| I-5 Northbound D/S Bridge Face | 2.37 | 50-year | 11.36 | 11.39 | 0.03 |
| | | 100-year | 12.73 | 12.77 | 0.04 |
| I-5 Southbound U/S Bridge Face | 2.35 | 50-year | 11.35 | 11.39 | 0.04 |
| | | 100-year | 12.72 | 12.76 | 0.04 |
| I-5 Southbound D/S Bridge Face | 2.34 | 50-year | 11.35 | 11.38 | 0.03 |
| | | 100-year | 12.71 | 12.75 | 0.04 |

Table 3. Available Freeboard at the I-5 Bridge Crossings for Proposed Conditions

| Location | Bridge Elevation (ft, NGVD 29) | | 100-year WSE (ft, NGVD 29) | Available Freeboard (ft) |
|--------------------------------|--------------------------------|------------|----------------------------|--------------------------|
| | Low Chord | High Chord | | |
| I-5 Northbound U/S Bridge Face | 17.9 | 19.4 | 12.78 | 5.1 |
| I-5 Northbound D/S Bridge Face | 17.9 | 19.4 | 12.77 | 5.1 |
| I-5 Southbound U/S Bridge Face | 17.8 | 19.3 | 12.76 | 5.0 |
| I-5 Southbound D/S Bridge Face | 17.8 | 19.3 | 12.75 | 5.1 |

Scour Analysis

A scour analysis was conducted to estimate the extent of channel degradation at the bridge location. The analysis included contraction scour and local pier scour. Water surface elevations in the channel are not high enough to cause scour to the abutments, therefore abutment scour was not evaluated (See **Figures 3a and 3b (Attachment A)**). Velocities and water surface elevations from the HEC-RAS model were utilized to evaluate scour of the piers and abutments.

The grain size in the channel is very fine due to the low velocities and very mild channel slope. A D_{50} value of 0.01 ft was used for the scour analysis based on information from the 2002 TM. The following additional assumptions also based on the 2002 TM were used: water temperature of 60° F, circular cylindrical shape for the columns, approach angle of flow of 90 degrees relative to the orientation of the bridge columns and channel bottom bedform of flat bottom to medium sized dunes (height of dunes ranging from 0 to 30 feet).

Table 4 provides the scour analysis results for contraction scour and pier scour for the northbound and southbound I-5 bridge crossings. Contraction scour was found to be negligible as the 100-year flow was contained within the channel upstream of and at the bridge crossings. Local scour at the piers was estimated to be approximately 2.7 ft. Total scour for the worst case condition is 2.7 ft.